MARYLAND DEPARTMENT OF THE ENVIRONMENT

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August 31, 2004

Gene Ratych, Chair, CCECA, Inc
2833 Cross Country Court
Fallston MD 21047

RE: MTBE Contamination of Groundwater
Upper Crossroads, Harford County, Maryland
Case No. 94-1251-HA

Dear Mr. Ratych:

Thank you for your letter of August 2, 2004. The enclosed document addresses each of your questions. For full and accurate information, please review the file that is available at the Fallston Library and at the Maryland Department of the Environment (MDE). You can also consult MDE's web site to obtain updated information. The responses are based on the public record and the Department's experience.

Sincerely,

Herbert Meade, Administrator
Oil Control Program
Waste Management Administration

HMM/nln

Enclosure

cc: Mr. Horacio Tablada

RESPONSE TO CROSS COUNTRY ESTATES COMMUNITY ASSOCIATION
(August 2, 2004 Letter from Gene Ratych)

QUESTION 1: What specifically are the other potential sources of contamination in the area. What immediate action has been taken by the MDE to evaluate and test these sites as possible sources of contamination and any emergency treatment instituted thus far?

Response: The Oil Control is evaluating the following potential sources of MTBE in the Upper Crossroads study area:

1. Exxon underground storage tank (UST) systems;
2. Exxon storm water management system;
3. Petroleum handling at 2808 Cross Country Court. The MDE issued Notice of Violation *NV-2005-005-July 20, 2004*;
4. Residential heating oil UST at 2822 Cross Country Road. The MDE witnessed the tank removal and the removal of 6.34 tons of oil-contaminated soil;
5. Former UST systems at Walkers Garage, Scarff's Store, and Dipasquale's Deli (formerly Wright's Store);
6. Other petroleum handling and storage within the study area; and
7. Storm water control systems within the study area.

ExxonMobil is currently performing a historical property use study and source evaluation. ExxonMobil is exploring additional potential sources through their investigation. Currently, the MDE understands that ExxonMobil has identified thirty or more other potential sources. Based on this study and other information collected, the above list may be expanded.

QUESTION 2: What are the current and past thresholds (Maximal Concentration Levels) of MBTE and other gasoline components in UST monitoring wells and on site potable wells that generate a decision to expand potable well testing and community notification? Are there written guidelines?

Response: The State action level for MTBE was 50 parts per billion (ppb) until 1998, at which time it was reduced to 20 ppb. The public notification guidelines for the Oil Control Program are set forth in Code of Maryland Regulations (COMAR) 26.10.09.08, which became effective November 1996. Notification is routinely provided to those parties whose wells are affected.

QUESTION 3: Based on history and general trending how long are petroleum contaminates expected to be detected in potable wells once the contaminating site is fully remediated? Could you complete the following? Once the source of MTBE contamination is removed or treated, you can expect (based on experience from previous spills around the country and current science) that your levels will become non-detectable in ( ) days-weeks-months-years, or it is unknown how long MTBE will persist in the Upper Crossroads groundwater after the contamination is removed or treated.

Response: Contamination trends are very site specific and even well specific. We have seen some wells reach non-detect in a matter of weeks while others never reach non-detect for the contaminant of concern. We cannot predict the future trend of the MTBE levels in the Upper Crossroads area. Once point sources are eliminated and a corrective action implemented, downward trends should become evident. This began occurring on the Exxon site after the Soil Vacuum Extraction system was installed.

A "source of MTBE contamination" may not always be identifiable for some wells that are found to contain MTBE. Therefore, removal of the "source" may not always be possible. It appears that some levels of MTBE in Upper Crossroads, as well as in the rest of our State, are also being transported through the recharge of groundwater from rain events.

(CCECA, Inc) STATEMENT: In the site map produced and distributed at the Public Meeting of July 20th 2004, all properties with levels greater than 20 ppb MTBE were designated in red. This gave the appearance that all wells marked in red were comparable in MTBE levels. In doing so, the implication made at the July 21st meeting was that areas such as Cross Country Estates and the property west on Fallston Road might have been exposed to other sources of contamination. We feel this map is misleading as to the prime sites of contamination.

QUESTION 4: Can the site map be reissued further designating wells as greater than 50 ppb and greater than 100 ppb. In addition, can a site map be issued showing only wells initially testing positive and subsequently testing negative, and a map showing wells initially testing negative and subsequently testing positive (with an adjoining legend as in the original site map issued July 19th 2004).

Response: The site maps are generated and prepared by ExxonMobil's consultant. Displaying the current map is not an attempt to skew the data being collected. As more data is collected, one type of map may not tell the full story for the study area. We will discuss this concern with ExxonMobil.

QUESTION 5: What is the current status of the negotiations between DL Horton and Exxon-Mobile in obtaining permission to tests all potable wells currently unsold at DelMar Farms. Will the MDE issue a statement that Phase I will not be considered completed until this testing is obtained?

Response: Negotiations have been completed and the testing of the DL Horton property is moving forward. MDE agrees that the testing of this area is very critical and an investigation cannot be considered complete without it.

QUESTION 6: If and when MTBE is removed from our well water, what other gasoline components could follow and what is the time frame that these contaminants might appear in surrounding potable wells?

Response: All sampling events are analyzed for a complete array of volatile organic compounds, including a full range of gasoline constituents as well as other compounds. In the Upper Crossroads study area, MTBE is the only gasoline constituent found consistently and above any action level. Based on the current situation, it does not appear likely that any other gasoline constituent will be found in these wells at a later date.

QUESTION 7: In the activity Summary Report by GES of June 23 1999, all correspondence and directives between the Harford County Health Department and the MDE were to Herbert Meade. Who were the other individuals in the Oil Control Program "committee" who made the decisions regarding monitoring of USTs, testing of potable wells, notification of commercial establishments of MTBE and non-notification of private property owners.

Response: Numerous people within the Department make decisions for each site. These people include Environmental Compliance Specialists, Geologists, Toxicologists, Section Heads, Division Chiefs, and others within the chain of command or from other Departments, as needed.

QUESTION 8: The Aegis reports the MCL of MTBE as 10 ppb for public water and 20 ppb for private wells. If so, why the two different standards?

Response: The MDE established action level for MTBE is 20 ppb for drinking water throughout the State. This action level is not an MCL.

QUESTION 9: Is MTBE in Maryland heating oil? Are there state or federal (EPA) guidelines requiring or restricting levels of MTBE in heating oil? What are the regulations of carriers with regards to crossover transport of heating oil and other petroleum products?

Response: There is MTBE in heating oil in Maryland and in the heating oil supply nationwide. Transportation of heating oil and other petroleum products is federally regulated under the Department of Transportation.

QUESTION 10: Who will be responsible for ongoing testing, at what intervals and for what length of time?

Response: For now, ExxonMobil is responsible for the ongoing testing within the study area of Upper Crossroads. If other responsible parties are found or if it is determined that ExxonMobil is not responsible for a portion of the study area, the responsibility for testing will be adjusted. Private wells with filtration systems are now being tested on a monthly basis. MDE and Harford County continue to split a percentage of ExxonMobil's samples to ensure the integrity of the sampling process.

QUESTION 11: What tests have been performed thus far on surface water drain offs? Specifically, there is a stream that originates just north of the Exxon-Mobile Station on MD Route 152 that flows down from MD Route 152 and across approximately12-20 properties on Cross County Court and Franklin's Chance. Have tests been performed to date and, if so, what are the results. Similarly, will the ponds that feed the Gunpowder River, reported at the public meeting and receive run-off drainage, be monitored?

Response: Surface water testing has been arranged with MDE's Technical and Regulatory Services Administration and has already been performed. We await the results, which will be posted on MDE's web site when available.

QUESTION 12: Why did the MDE not request additional monitoring of the Walker monitoring well at Walkers Garage (P387) when the level of MTBE in 1994 was 156.8 ppb? If monitoring was performed, what are results? This tank was officially reported by the State database as a leaking UST (LUST). What is the status of the tank?

Response: MDE did require additional sampling at this site. All tanks were removed from Walkers Garage in June 1990. In 1995, the level for MTBE was 75 ppb, and in June 1997 the level for MTBE was 12 ppb. See also Response to question number one.

QUESTION 13: In 1998, after removal of 2 USTs from the Parkville Cleaners/Designers Floors property (formerly Scarff's Store-gasoline station) P279, the MDE was notified of readings of 400 parts per million to 3400 ppm of a petroleum contaminant. This prompted a request by MDE to request potable well sampling. What wells were tested and what were the results? What method of testing was used when sampling these potable wells?

Response: The 400 ppm to 3,400 ppm reading was detected with a field instrument known as a Photovac Microtip. This instrument measures total volatiles. Sampling was performed at 2419, 2800, and 2404 Baldwin Mill Road. MTBE levels on December 4, 1998 were 11 ppb, non-detect, and 126 ppb, respectively.

QUESTION 14: What is the MDE doing to address the contamination of the soil in the vicinity of the USTs at Exxon-Mobile and other potential sites of contamination at Upper Crossroads.

Response: Part of ExxonMobil's investigation plan is to investigate the soil at the Exxon station. This portion of the study was started on August 5, 2004. Currently, a Soil Vacuum Extraction system is running at the station. This will help address soil issues and vapor issues. Other sites are being investigated. Following the removal of a home heating oil tank, 7 tons of oil-contaminated soil was removed from the private residence at 2822 Cross Country Road.

QUESTION 15: What is the current status of the following UST sites in the Upper Crossroads area.

Walkers Garage P387: **Response:** Tanks Removed
Parkville Cleaners/Designer Floors (Formerly Scarff's Store) P279: **Response:** Tanks Removed
Webbs Garden Center: **Response:** MDE has no knowledge of tanks.
WAWA Store P 244: **Response:** MDE has no knowledge of tanks.
Dipasquales Deli (formerly Wright's Store) P 188: **Response:** Tanks Removed
Fallston Cleaners: **Response:** MDE has no knowledge of tanks. See also Response to question number one.

QUESTION 16: What were the levels of petroleum contaminants from potable well samplings of WAWA, Exxon-Mobile, Dough Factory (subsequently Mama Liberas) Commercial Bank (now MTB Bank) and Crossroads Station in 1991.

Response: In 1991, the levels were: WAWA - 1 ppb Toluene; Exxon - 9.5 ppb MTBE; Dough Factory - not sampled; Commercial Bank - not sampled; Crossroads Station Parcel 405 - not sampled. More detailed sample results can be found in MDE's case files that have been made available to the public.

QUESTION 17: For the record, is Exxon-Mobile complying in every way to regulations as are imposed today **as compared to when the station opened in 1987? Are any regulations "grandfathered" in by way of the station having been opened in 1987 and not having to comply with any newer regulations today?**

Response: ExxonMobil is currently complying with all Oil Control regulations. The year an UST is placed in service has no effect on compliance with current regulations.

QUESTION 18: What is the current position of the MDE in expanding this radius of testing in terms of time frame?

Response: As MDE receives new data, the study area is always under review.

QUESTION 19: Could the MDE confirm one of the following statements: "One spill bucket around a UST at the Exxon-Mobile Station was defective. MDE is confident that this spill bucket did not contribute to the MTBE groundwater contamination found in surrounding potable wells" OR "One spill bucket around a UST at the Exxon-Mobile Station was defective. This spill bucket could potentially have contributed to the MTBE groundwater contamination found in surrounding potable wells"

Response: At least one spill bucket was found to be defective and was replaced by ExxonMobil. Defective spill buckets may contribute to petroleum contamination.

QUESTION 20: As MDE has stated their concern that MTBE vapor may have seeped out of fuel tanks or pipes into our groundwater, what is the status of new regulations to specifically address the threat of vapor leaks contaminating our groundwater?

Response: As announced by the Governor on August 11, 2004, MDE is pursuing emergency regulations to address the protection of High Risk Water Use areas across our state from MTBE and other petroleum releases. This High Risk area includes most of if not all of Harford County.

QUESTION 21: Currently as a result of the MD 165 closure and the decision by many residents not to use Exxon- Mobile, the pumping activity has decreased considerably. Since the new tracer test requires active pumping, how can this test accurately reflect what would occur if the degree of pumping activity increased? Furthermore when these tests were conducted, were tanks filled to capacity simulating normal hydrostatic pressure gradients?

Response: The company that performed the Tracer test, Praxair, has ensured MDE that the test was done to the highest degree of accuracy attainable. MDE has received a written report of the Tracer test. This report is available on our web site.

QUESTION 22: Why is a 30-day written request needed to review public information from the MDE?

Response: File review requests are handled in accordance with the Maryland Public Information Act (PIA), which can be found in Sections 10-611 to 10-628 of the State Government Article. For more details on the PIA, please refer to MDE's general web site at www.mde.state.us.

QUESTION 23: Why was the MDE only concerned about commercial properties and not private properties after the demonstration of high levels of MTBE in the UST sites noted above?

Response: MDE is concerned with protecting the health, welfare, and safety of the citizens of this state and our environment. This includes both commercial and private properties that are affected by a release of petroleum product. It is unclear what levels or sites you refer to in this question.